

Chatbots for future docs: exploring medical students' attitudes and knowledge towards artificial intelligence and medical chatbots

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Abstract

ABSTRACT Artificial intelligence (AI) in medicine and digital assistance systems such as chatbots will play an increasingly important role in future doctor – patient communication. To benefit from the potential of this technical innovation and ensure optimal patient care, future physicians should be equipped with the appropriate skills. Accordingly, a suitable place for the management and adaptation of digital assistance systems must be found in the medical education curriculum. To determine the existing levels of knowledge of medical students about AI chatbots in particular in the healthcare setting, this study surveyed medical students of the University of Luebeck and the University Hospital of Tuebingen. Using standardized quantitative questionnaires and qualitative analysis of group discussions, the attitudes of medical students toward AI and chatbots in medicine were investigated. From this, relevant requirements for the future integration of AI into the medical curriculum could be identified. The aim was to establish a basic understanding of the opportunities, limitations, and risks, as well as potential areas of application of the technology. The participants (N = 12) were able to develop an understanding of how AI and chatbots will affect their future daily work. Although basic attitudes toward the use of AI were positive, the students also expressed concerns. There were high levels of agreement regarding the use of AI in administrative settings (83.3%) and research with health-related data (91.7%). However, participants expressed concerns that data protection may be insufficiently guaranteed (33.3%) and that they might be increasingly monitored at work in the future (58.3%). The evaluations indicated that future physicians want to engage more intensively with AI in medicine. In view of future developments, AI and data competencies should be taught in a structured way during the medical curriculum and integrated into curricular teaching.